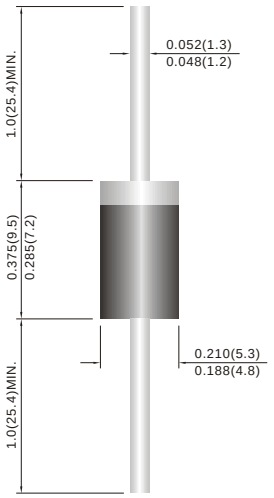
SBT5100LSS

ULTRA LOW VF SCHOTTKY RECTIFIER

Voltage 100 V **Current** 5 A

DO-201AD Unit: inch(mm)

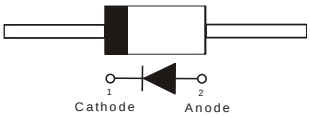


Features

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive).

Mechanical Data

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads,solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.0402 ounces, 1.142 grams
- Marking: Part number



Maximum Ratings (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum rms voltage	V_{RMS}	70	V
Maximum dc blocking voltage	V_R	100	V
Maximum average forward rectified current	$I_{F(AV)}$	5	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80	A
Typical thermal resistance (Note 1)	$R_{\theta JL}$	23	°C/W
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Note : 1. The testing condition of the thermal resistance (junction to ambient and junction to lead) is based on 0.375”(9.5mm) lead length between two 10x10cm copper pad heatsinks.

2. Short duration pulse test used to minimize self-heating effect.

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Electrical Characteristics (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V_{BR}	I_R=0.5mA	T_J=25°C	100	-	-	V
Instantaneous forward voltage	V_F	I_F=1A	T_J=25°C	-	0.44	-	V
		I_F=2A		-	0.5	-	
		I_F=5A		-	-	0.7	
		I_F=1A	T_J=125°C	-	0.36	-	V
		I_F=2A		-	0.45	-	
Reverse current	I_R	V_R=80V	T_J=25°C	-	3	-	μA
		V_R=100V	T_J=25°C	-	-	20	μA
			T_J=125°C	-	3	-	mA

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TYPICAL CHARACTERISTIC CURVES

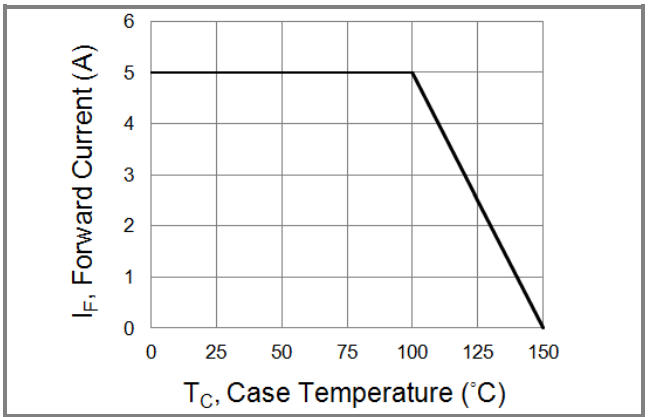

Fig.1 Forward Current Derating Curve

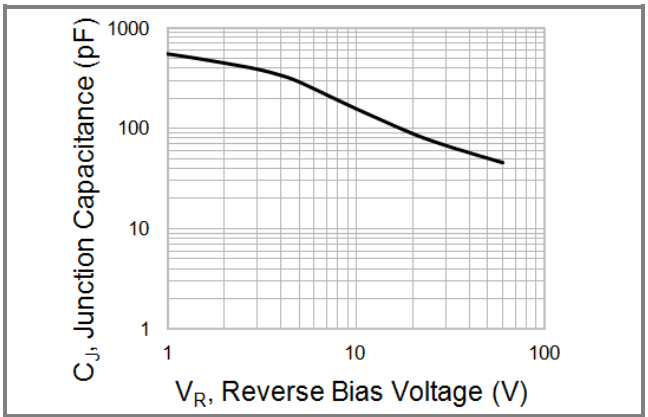

Fig. 2 Typical Junction Capacitance

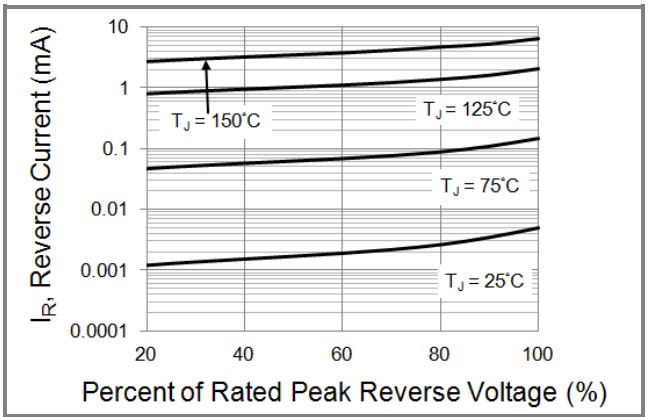

Fig.3 Typical Reverse Characteristics

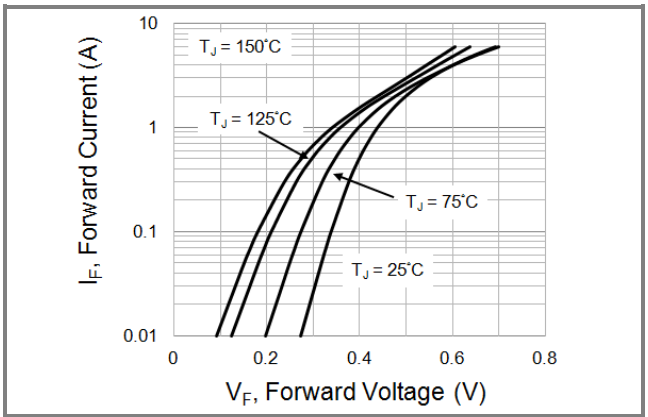

Fig. 4 Typical Forward Characteristics

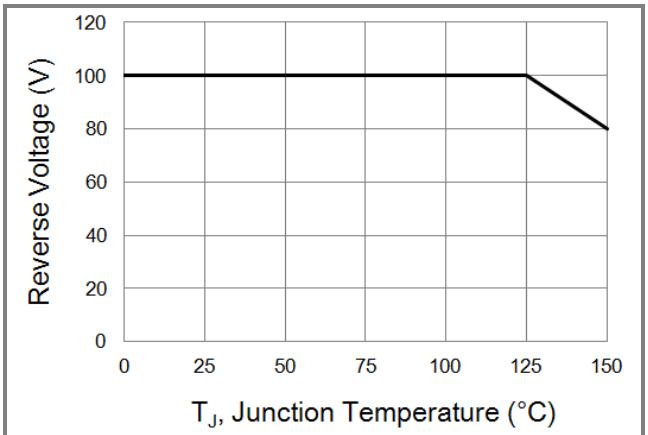

Fig.5 Operating Temperature Derating Curve

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Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT5100LSS_AY_00001	DO-201AD	1250pcs / Ammo	SBT5100LSS	Halogen free
SBT5100LSS_B0_00001	DO-201AD	500pcs / Box	SBT5100LSS	Halogen free
SBT5100LSS_R2_00001	DO-201AD	1250pcs / 13” reel	SBT5100LSS	Halogen free

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